

Brunswick, ME April 21, 2021

Greenville, ME

Boston, MA

Northampton, MA

Alexandria, NH

Bretton Woods, NH

Blairstown, NJ

Haverstraw, NY

New York, NY

Bethlehem, PA

Jonathan Evans, Chair

John Duclos

George Kassas

New Hampshire Site Evaluation Committee

21 South Fruit Street, Suite 10

Concord, NH 03301

SEC Docket No. 2021-02: Appalachian Mountain Club comments to Antrim Wind subcommittee

Dear Ms. Sheehan, Mr. Duclos and Mr. Kassas:

The Appalachian Mountain Club (AMC) submits the following comments to the SEC subcommittee established by the April 2, 2021 order to investigate the ongoing issues concerning the Antrim Wind project. We request that we be added to the service list for this docket.

AMC was an intervenor in the permitting of this project. AMC's Director of Research Dr. Kenneth Kimball (since retired) submitted prefiled direct testimony¹ and testified at the public hearing² for SEC Docket No. 2012-01. We did not take a position either for or against the project, but expressed our concern with the visual impacts it would create. In order to mitigate the impact of nighttime lighting, we reached a settlement agreement with the developer (then Antrim Wind Energy LLC) requiring the use of radar-activated aircraft warning lighting (hereafter Aircraft Detection Lighting System or ADLS). This agreement was included as Appendix 11 to the revised application submitted in SEC Docket No. 2015-02³, and as a condition in the SEC's Decision and Order⁴.

The AMC thus has a strong interest in the operation of the Antrim ADLS and whether it is serving the intended mitigation purpose. AMC is a proponent of "dark skies"⁵, an [international effort](#) to reduce night light pollution that impacts not only aesthetics, but also can be a fatal attraction to migrating birds and bats. Therefore, AMC's interest in

¹ [Microsoft Word - Kimball prefiled testimony SEC 2012-01 7.31.12.docx \(nh.gov\)](#)

² [F-DAY 6 - AFTERNOON SESSION ONLY-November 27, 2012 \(nh.gov\)](#), pp. 156-187 and [11-28-12AWE-Day7AM \(nh.gov\)](#), pp. 7-17.

³ [10-02-15-sec-2015-02-appendix-11-amc-agreement-fully-executed-7-31-12.pdf \(nh.gov\)](#).

⁴ [2015-02_2017-03-17_order_final_decision.pdf \(nh.gov\)](#), p. 156.

⁵ AMC is working to achieve International Dark-Sky Association Park status on our the Maine Woods lands, which would protect the nearly 75,000 acres from light pollution and seek to attract astronomy lovers from around the world. If the designation is granted, AMC's Maine Woods would be the first Dark Sky Park in New England. <https://www.outdoors.org/articles/preserving-the-dark-skies-of-the-maine-woods>.



ADLS extends beyond this one project, but this project is important for understanding the potential impacts (and mitigation of these impacts) of any future projects.

It was recently brought to our attention that residents in the vicinity of the project have expressed concern about whether the ADLS is properly functioning.⁶ We also have been made aware of concerns that intervenors were not notified about SEC meetings to discuss this and other issues with the project. This concern was also expressed by Senator Bradley and other legislators in a letter to the SEC.⁷

The AMC shares this concern about the lack of notification. As an intervenor and the party primarily responsible for the use of ADLS on this project, we believe we had a right to be notified of any issues with the system and any SEC meetings at which they were discussed. We accept that the SEC followed required procedures and was under no legal obligation to notify us. However, sometimes the spirit of the law is more important than the letter. We agree with Sen. Bradley that this is an issue of fundamental fairness and transparency. If the SEC rules do not provide for this type of notification, then the rules must be changed.

Regarding the ADLS, we have reviewed the post-certificate filings on the SEC web site. Based on this information, we have the following understanding:

- Complaints about the excessive operation of nighttime lighting began shortly after the project commenced operation in December 2019 and have continued until the March 25, 2021 SEC meeting.
- Transalta has stated that the system is performing correctly and in accordance with FAA regulations, with the exception of two known mechanical issues.⁸
- Transalta has stated that the lighting may be triggered by events other than an actual aircraft entering the FAA-defined “Detection Zone” (three nautical miles horizontally and 1000 feet vertically from the project), leading to the lights turning on for a minimum of 30 minutes or as much as one to three days.⁹
- Transalta has stated that it is likely that the system has been optimized as much as possible to minimize non-aircraft triggering of the lights.¹⁰
- Transalta submitted ADLS performance statistics for two periods (one of eight days and one of fourteen days) during the summer of 2020.¹¹ Excluding one day when the lighting was activated due to severe weather, the statistics show that the lighting was activated on 20 of the 21 days. For 16 of the days the lights were

⁶ [2015-02_2021-03-25_comment_block.pdf \(nh.gov\)](#).

⁷ [2015-02_2021-01-29_senator_bradley_ltr_sec_with_signatures.pdf \(nh.gov\)](#).

⁸ [2015-02_2020-05-01_ltr_awe_terma_aircraft_detection_lighting.pdf \(nh.gov\)](#).

⁹ *Ibid* and [Microsoft Word - AWE-NHSEC ADLS update 2020-03-04.docx](#).

¹⁰ [2015-02_2020-07-28_update_aircraft_detection_lighting_optimization.pdf \(nh.gov\)](#).

¹¹ [2015-02_2020-06-05_summary_adls_statistics.pdf \(nh.gov\)](#) and [2015-02_2020-08-25_latour.pdf \(nh.gov\)](#).



1) **What is the complete performance record of the Antrim ADLS system?** Data from only two limited periods has been provided. How these periods were chosen and whether they are representative of the longer period of operation is unknown. We note that the performance during the second period in August 2020 was significantly worse than that from the earlier period. The Subcommittee should request more data on lights on events since the commencement of operations. Where the cause of the triggering is known (such as mechanical issues or severe weather) this should be noted. (We realize that Transalta has stated that this data cannot be automatically generated and is cumbersome and time-consuming to develop, but this cannot be the concern of the Subcommittee.)

The Subcommittee should also attempt to determine, even if approximately, the relative proportion of real aircraft detections and false positives. We don't know whether this information can be derived from the system records. Comparing the record of lights on events to records of takeoffs and landings from nearby airports may be useful. (Aircraft traveling longer distances across the project area are likely to be flying at altitudes above the Detection Zone.)

2) **How does the performance of the Antrim ADLS system compare to that of other installations of this technology?** While Antrim is the only wind power project in New Hampshire using this system, it is in use on other types of installations (such as transmission lines and telecommunications towers) and has been installed on wind power projects in other states. (There are four projects in Maine utilizing ADLS).

Answering this question is critical to understanding whether the situation at Antrim can be improved. We urge the Subcommittee to cast a broad net in seeking information on this question. While the manufacturer of the Antrim system should be able to provide information on the performance of their technology in other installations, that is not sufficient by itself. The Subcommittee should seek performance information from manufacturers of different systems, as well as from regulatory agencies in other states to see if the types of complaints about Antrim Wind are common or unique to this facility.

We contacted Mark Stebbins of the Maine Department of Environmental Protection to see if there had been complaints about ADLS for projects in that state. He responded that *"It is my understanding that the system is not fool proof in that there are cases (Bingham & Passadumkeag) where the RAL [radar-activated lighting] does not work correctly, and the lights remain on in a continuous mode."* He provided no more detail and we do not know if these issues represent unavoidable and infrequent mechanical or weather-related issues, or whether they represent the same type of frequent triggerings as have occurred at Antrim.

If it turns out that the Antrim ADLS system is performing as well as can be expected and is typical of what can be expected of this technology by other ADLS manufacturers as well, this will be disappointing. It will come as little comfort to the residents of Antrim,



but will be important for informing whether this technology can be considered a viable mitigation option on other projects. However, if the performance of the Antrim system is atypical, then the SEC must take strong action as part of its monitoring and enforcement responsibilities. These actions could include requiring further optimization or the replacement of the system with a different one with better performance.

We sincerely hope that the Subcommittee takes its responsibility to investigate and address these issues seriously. We will be closely following your work.

Sincerely,

Dr. David Publicover
Senior Staff Scientist
Appalachian Mountain Club
Gorham, NH
(603) 466-8140
dpublicover@outdoors.org

cc: Jon Lavellee
Michael Iacopino